

REMARKS

The Office Action of October 4, 2007 has been received and the comments therein carefully considered. Applicant acknowledges and thanks the Examiner for the indication that claims 22, 23, and 26 each contains allowable subject matter. Applicant has now rewritten each of these claims in independent form as new claims 31, 32, and 33, respectively. Each of these claims includes all of the limitations of the base claim as well as the limitations of any intervening claims. In addition, Applicant has provided a replacement Abstract which does not contain legal phraseology, such as the word "means," as requested in the Office Action.

Claims 18-30 are pending in the instant application. The Examiner objected to claims 18, 22 and 27 for certain informalities. These claims have thus been amended to obviate the Examiner's objections.

Claims 18-21, 22-25, 27-28 and 30 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,112,837 to Kanno et al. (hereinafter "Kanno"). Kanno is directed to a wheelchair which is manually operated and assisted by an electric motor. The electric motor in Kanno assists the user in moving the chair when the user turns the hand rim, thus causing the compression of a spring which provides a signal to the electric motor. More particularly, in Kanno a motor unit 89 is positioned adjacent to the hub, rather than in the hub. The motor unit is mounted on a backing plate 45 of a carrying wheel. (See Kanno, col. 8, lines 23-26.) According to Kanno, the motor unit 89 is connected to a gearing arrangement, and the gearing arrangement is positioned "in the hub". Hence, Kanno discloses a motor-driven carrying wheel, wherein the motor unit as such is positioned at a distance from the hub, with the gearing being positioned in the hub.

By contrast, claim 18 requires drive means "at least substantially being arranged in a hub of a carrying wheel". The Examiner has apparently ignored the limitation for "at least substantially being arranged in" as set forth in claim 18, since the motor unit in Kanno clearly does not meet this limitation.

The positioning of the drive means as required by claim 18 has substantial advantages with respect to the conventional motor arrangement according to Kanno. The drive means as required by claim 18, which may also be called a "direct drive motor" not only results in a compact, efficient and constructively simple arrangement, but it also has the major advantage that the motor unit, or at least a rotor thereof, is practically freely rotatable

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(free of friction) in the hub. This makes the wheelchair ideally suitable to be operated manually if desired. For example, see the description of Fig. 2 in the instant application: "push rims 19 can be locked in the shown position, wherein push rims 19 are oriented substantially parallel to drive wheel 17, whereby manual driving is also made possible in this case."

With the arrangement according to Kanno, whereby a gear is applied in the hub, manual operation of the wheels would cause a rotation of the gear and consequently of the motor unit itself. This makes manual operations substantially more difficult, requiring substantially more exertion by the user than in the case of a direct drive motor.

Moreover, a direct drive motor is also ideally suitable to drive the carrying wheel when fully motorized. Hence, the direct drive motor as claimed is the most efficient technical solution to realize a hybrid wheelchair, which can be operated as desired, either fully motorized or fully manual.

Finally, the gearing arrangement in Kanno is certainly not directed to facilitating manual operation. Rather, the purpose of the gear located in the hub of Kanno is to increase the power initially imparted by the motor unit to the wheel, thus making the wheelchair more powerful. One skilled in the art would realize that this teaches away from making manual operation by the user easier.

Claims 19-30, which depend from claim 18, either directly or indirectly, are also deemed allowable for the reasons set forth above.

Entry of the amendments and allowance of claims 18-33 are requested.

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Should the Examiner have any questions regarding any of the foregoing, or wish to discuss this application in further detail to advance prosecution, the Examiner is invited to contact Applicant's undersigned representative at the telephone number provided below.

Respectfully submitted,
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